

## PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

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(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 101000.0001P	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/US02/28726	International filing date (day/month/year) 09 September 2002 (09.09.2002)	Priority date (day/month/year) 07 May 2002 (07.05.2002)
International Patent Classification (IPC) or national classification and IPC IPC(7): C04B 24/00 and US Cl.: 106/724, 823		
Applicant WASTE MARKETS CORPORATION		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.


2. This REPORT consists of a total of 4 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 2 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of report with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☒ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 21 November 2003 (21.11.2003)	Date of completion of this report 07 September 2004 (07.09.2004)
Name and mailing address of the IPEA/US Mail Stop PCT, Attn: IPEA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230	Authorized officer Paul Marcantoni  Telephone No. 571-272-1373

Form PCT/IPEA/409 (cover sheet)(July 1998)

**I. Basis of the report****1. With regard to the elements of the international application:\***

- ☐ the international application as originally filed.
- ☒ the description:  
pages 1-8 as originally filed  
pages NONE, filed with the demand  
pages NONE, filed with the letter of \_\_\_\_\_.
- ☒ the claims:  
pages 11, as originally filed  
pages NONE, as amended (together with any statement) under Article 19  
pages 9-10, filed with the demand  
pages NONE, filed with the letter of \_\_\_\_\_.
- ☒ the drawings:  
pages 1, as originally filed  
pages NONE, filed with the demand  
pages NONE, filed with the letter of \_\_\_\_\_.
- ☐ the sequence listing part of the description:  
pages NONE, as originally filed  
pages NONE, filed with the demand  
pages NONE, filed with the letter of \_\_\_\_\_.

**2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.**

These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

**3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:**

- ☐ contained in the international application in printed form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

**4. ☐ The amendments have resulted in the cancellation of:**

- ☐ the description, pages NONE
- ☐ the claims, Nos. NONE
- ☐ the drawings, sheets/fig NONE

**5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\***

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.  
PCT/US02/28726

## V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

### 1. STATEMENT

Novelty (N)	Claims <u>NONE</u>	YES
	Claims <u>1-24</u>	NO
Inventive Step (IS)	Claims <u>NONE</u>	YES
	Claims <u>1-24</u>	NO
Industrial Applicability (IA)	Claims <u>1-24</u>	YES
	Claims <u>NONE</u>	NO

### 2. CITATIONS AND EXPLANATIONS

Claims 1-24 lack novelty and inventive step under PCT Article 33(2-3) over Cook et al. (5,143,633) and Levina et al. Both references teach using waste soap as an additive to cement that would have the effect as air entrainer and thus render applicants' claimed invention obvious to one of ordinary skill in the art (see claims and abstract).

Claims 1-24 the criteria set out in PCT Article 33(4), and thus meets industrial applicability because the subject matter claimed can be made or used in industry.  
It is known to used cement or concrete in the construction trades and thus its use  
Is certainly critical.

----- NEW CITATIONS -----

**INTERNATIONAL PRELIMINARY EXAMINATION REPORT**

International application No.

PCT/US02/28726

**VII. Certain defects in the international application**

The following defects in the form or contents of the international application have been noted:

There are two identical claim 23's in the listing of claims. One of these claims must be canceled.

## CLAIMS

1 PEA/US

What is claimed is:

1. A method of recycling waste comprising:  
obtaining a liquid waste material resulting from the manufacture of a first product;  
and  
utilizing the obtained liquid waste material as an air entraining admixture in the  
production of a second product.
2. The method of claim 1 wherein the waste material has a pH greater than 8.0.
3. The method of claim 1 wherein the waste material has a BOD greater than 1000  
mg/L.
4. The method of claim 1 wherein the waste material comprises water, at least one  
surfactant, and at least one fragrance.
5. The method of claim 1 wherein the waste material causes foaming in aeration tanks of  
treatment plants.
6. The method of claim 1 wherein the waste material is a soap or shampoo.
7. The method of claim 1 wherein the first product is a soap or shampoo.
8. The method of claim 1 wherein the first product is a product adapted to be used to  
wash a person's skin or hair.
9. The method of claim 1 wherein the second product comprises cement, and the waste  
material is used in formation of at least some of the clinker used in the cement.
10. The method of claim 10 wherein the waste is added during finish grinding of the  
clinker.
11. The method of claim 1 wherein the second product comprises concrete, and the waste  
material is mixed with cement and water to form the concrete.
12. The method of claim 1 wherein the second product comprises concrete, and  
substantially all of the water in the concrete is water from the waste material.

13. The method of claim 1 wherein the waste material comprises at least one of the following: materials not meeting specifications, expired product, and discontinued product.
14. The method of claim 1 wherein the waste materials comprises rinse water used in purging of lines, clean-up operations, and rinsing of equipment and tanks.
15. The method of claim 1 wherein the method comprises:  
obtaining a waste material resulting from the manufacture of a shampoo, the waste material comprising essentially shampoo or diluted shampoo; and  
utilizing the obtained waste material as an air entraining admixture in the production of a concrete comprising clinker and water, the waste material being added to the concrete either as part of the clinker or as an ingredient in addition to the clinker and water.
16. A cement product comprising a waste material generated during the manufacture of a first product as an air entraining admixture.
17. The cement product of claim 16, the product comprising a cement wherein the amount of waste material is 0.05% to 0.75% of the amount of cement clinker on a weight to weight basis of the cement.
18. The cement product of claim 16 wherein the cement product is concrete.
19. The concrete of claim 18 wherein the amount of waste materials is 0.05% to 3% of the amount of cement on a weight-to-weight basis used in the concrete.
20. The concrete of claim 18 wherein the amount of waste materials is 5% to 20% of the amount of cement on a weight-to-weight basis used in the concrete.
21. The cement product of claim 16 wherein the cement product is a concrete structure.
22. The cement product of claim 16 wherein the cement product is cement comprising calcined shampoo waste.
23. The cement product of claim 16 wherein the cement product is concrete comprising shampoo waste.